PB88-159991

Superfund Record of Decision (EPA Region 5): Laskin/Poplar Oil Site, Ashtabula Ohio, (Second Remedial Action) September 1987

(U.S.) Environmental Protection Agency
Washington, DC

30 Sep 87

U.S. Department of Commerce
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EPA/ROD/R05-87/053		PB88 159991/AS

4. TITLE AND SUBTITLE	5. REPORT DATE
SUPERFUND RECORD OF DECISION Laskin/Poplar Oil, OH Second Remedial Action	September 30, 1987 6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S)	8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Same as box 12.	10. PROGRAM ELEMENT NO. 11. CONTRACT/GRANT NO.
12. SPONSORING AGENCY NAME AND ADDRESS U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460	13. TYPE OF REPORT AND PERIOD COVERED Final ROD Report 14. SPONSORING AGENCY CODE 800/00

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Laskin/Poplar Oil site, occupying approximately 9 acres, is located in Ashtabula County, Ohio. Approximately 80 years ago a greenhouse operation began. Boilers were installed approximately 30 years ago to heat the greenhouses. During the 1960's, tanks were installed to hold waste oil to fire the boilers. The oils were not analyzed prior to acceptance and oil containing PCBs and other hazardous constituents were accepted. As the greenhouse business deteriorated, the owner began collecting, reselling and disposing of waste oils containing PCBs and other hazardous constituents. Several emergency actions were taken after the site was discovered and during critical periods such as mudslides and flooding. Between July and October 1982, a planned removal action removed 302,000 gallons of waste oil, solidified 205,000 gallons of sludge and treated and released 430,000 gallons of contaminated water. An August 1984 Record of Decision addressed the incineration of contaminated water, oil above 50 ppm, PCB and oil below 50 ppm PCB. Currently bulk waste material including 6,000 gallons of oil, 60,000 gallons of waste water and 705,000 gallons of sludge are still present at the site. The primary contaminants of concern affecting the soil include: PCBs, PAHs, VOCs and metals (primarily lead).
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Record of Decision Laskin/Poplar Oil, OH Second Remedial Action Contaminated Media: soil Key contaminants: lead, PAHs, PCBs, VOCs, metals		

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EPA/ROD/R05-87/053
Laskin/Poplar Oil, OH
Second Remedial Action

16. ABSTRACT (continued)

The selected remedial alternative includes: construction of a fence around contaminated portions of the site and the onsite incinerator; onsite incineration of oils, sludges and highly contaminated soils; offsite treatment of all waste waters, decontamination water and scrubber water; offsite disposal of all incinerator ash; dismantling and offsite disposal of all tanks; crushing and incineration of cinder block walls of the pits; and backfilling and grading of all excavated areas. The estimated present worth of the recommended alternative is $8.5 million with no O&M required.

ATTENTION

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EPA/ROD/R05-87/053
September 1987

PB88-159991

EPA

Superfund Record of Decision:

Laskin Poplar Oil, OH (2nd O.U.)

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RECORD OF DECISION
Remedial Alternative Selection
Source Removal Operable Unit

SITE: Laskin/Poplar Oil - Ashtabula, Ohio

PURPOSE:

This decision document represents the selected remedial action for the operable unit for the Laskin/Poplar Oil site. It was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and to the extent practicable, the National Contingency Plan of 1985 (NCP) (40 CFR Part 300).

The State of Ohio has concurred on the selected remedy, as stated in the attached Letter of Concurrence.

BASIS:

The selection of remedy is based upon the Laskin/Poplar Oil site Administrative Record. The attached index identifies the items which comprise this record.

DESCRIPTION OF SELECTED REMEDY:

The selected remedy consists of the following major components:

- construction of a fence around the contaminated portions of the site and the on-site incinerator;
- on-site incineration of oils, sludges, and highly contaminated soils;
- off-site treatment of all wastewater, decontamination water, and scrubber water;
- off-site disposal of all incinerator ash;
- dismantling and off-site disposal of all tanks;
- crushing and incineration of the cinder block walls of the pits;
- backfilling and/or grading of all excavated areas to preclude ponding.

DECLARATION:

Consistent with CERCLA, as amended by SARA, and the NCP, I have determined that the remedy described above is a cost-effective interim remedy. This action is

protective of human health and the environment, attains Federal and State applicable or relevant and appropriate requirements, and is cost-effective. This option will not require any long-term operation and maintenance activities. This remedy satisfies the preference for treatment that reduces toxicity, mobility, or volume as a principal element. Finally, it is determined that the remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

The United States Environmental Protection Agency (U.S. EPA) is continuing its compresensive Remedial Investigation/Feasibility Study (RI/FS) for the Laskin/Poplar Oil site. Phase II of the RI is scheduled to begin during the 1st Quarter of Fiscal Year 1988 and will further characterize the site, major migration pathways, and extent of dioxin contamination. The U.S. EPA is planning to complete the remaining tasks of the RI/FS by late 1988. This will include the identification and evaluation of potential final remedial actions. If additional remedial actions are determined to be necessary, a Record of Decision will be prepared for approval of the future remedial actions.

September 30th, 1987

Date

Valdas V. Adamkus

Valdas V. Adamkus
Regional Administrator
United States Environmental Protection Agency, Region V

OhioEPA

State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149

Toward A Cleaner Environment
15 Year Anniversary 1972 - 1987

Richard F. Celeste
Governor

September 28, 1987

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U.S. EPA REGION 5
OFFICE OF REGIONAL ADMINISTRATOR

Mr. Valdas V. Adamkus
Regional Administrator
U.S. EPA, Region V
230 South Dearborn Street
Chicago Illinois 60604

Dear Mr. Adamkus:

After review of the Phased Feasibility Study for Source Material Removal for the Laskin/Poplar Oil Superfund site and the draft Record of Decision for this remedial action, Ohio EPA concurs with the proposed remedial alternative; This alternative includes:

- construction of a fence around the contaminated portions of the site and the on-site incinerator;
- on-site incineration of oils, sludges and "source soils";
- off-site treatment of all wastewaters, decontaminated water, and scrubber water;
- off-site disposal of all incinerator ash;
- dismantling and off-site disposal of all tanks;
- crushing and incineration of the cinder block walls of the pits;
- and backfilling and grading of all excavated areas.

Estimated cost of $8.5 million.

Ohio EPA will assure payment of 10 per centum of the remedial action. There is no operation and maintenance required for this action.

Sincerely,

Richard L. Shank, Ph.D.
Director

O. WMD
CC: RF
RA
FREEMAN ✓

RLS/RH/lz

cc: David Strayer, CAS,DSHWM
Rodney Beals, NEDO
Dale Vitale, AGO

LASKIN / POPLAR OIL SITE
JEFFERSON, OHIO
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SUMMARY OF REMEDIAL ALTERNATIVE SELECTION

LASKIN/POPLAR OIL SITE

SOURCE REMOVAL OPERABLE UNIT

SITE LOCATION AND DESCRIPTION

The Laskin/Poplar Oil site is located west of the village of Jefferson in Ashtabula County, Ohio. The site occupies approximately 9 acres. The general site location is shown in Figure 1.

The site is bounded on the north by Cemetery Creek, on the south and east by the Ashtabula Fairgrounds, and to the west by wooded areas. A map of the site is shown in Figure 2. The following facilities and structures are located on site:

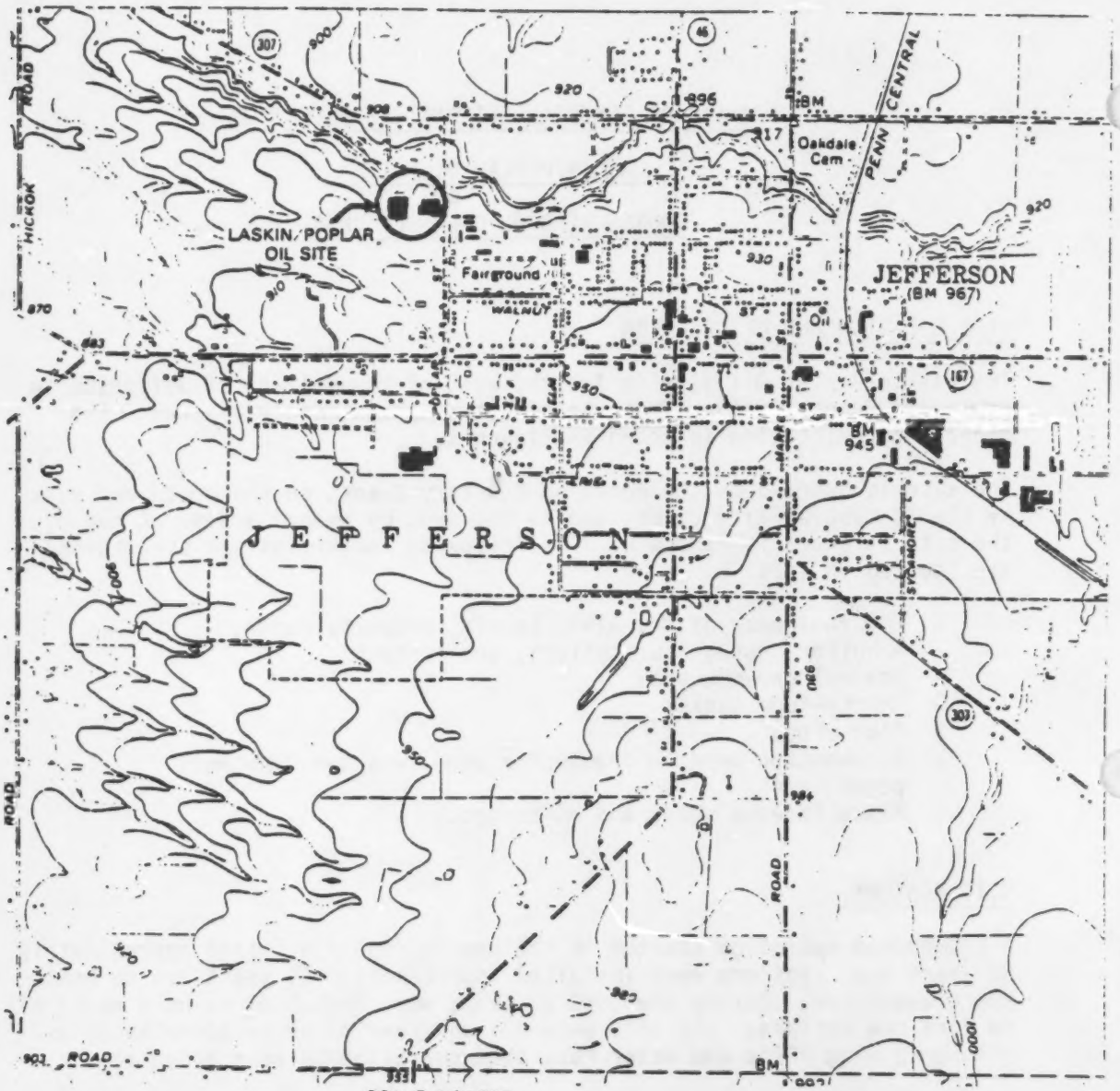
- The residence of Mr. Alvin Laskin, property owner;
- A boiler house, four boilers, and a stack;
- Several greenhouses;
- Thirty-four tanks;
- Four pits;
- A retention pond, a freshwater pond, and two treatment ponds; and
- Miscellaneous sheds and buildings.

SITE HISTORY

A greenhouse operation started at the Laskin/Poplar oil site approximately 80 years ago. Boilers were installed approximately 30 years ago to heat the greenhouses. During the 1960's, tanks were installed to hold waste oil to fire the boilers. The oils were not analyzed prior to acceptance, and oil containing PCB's and other hazardous constituents were accepted.

When the greenhouse business deteriorated, the owner began collecting, reselling, and disposing of waste oils. These activities included oiling roads in Ashtabula County. Through a series of legal actions, the company was placed into receivership. All on-site business activities relating to oil have stopped.

Remedial activities began in December, 1980 and the site is presently involved in a comprehensive federal-lead Remedial Investigation/Feasibility Study (RI/FS) which will be completed in 1988. This action is an operable unit to address the source material onsite. It will be consistent with the final remedy to the greatest extent practicable.



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

QUADRANGLE LOCATION

FIGURE 1
LOCATION MAP
LASKIN/POPLAR OIL

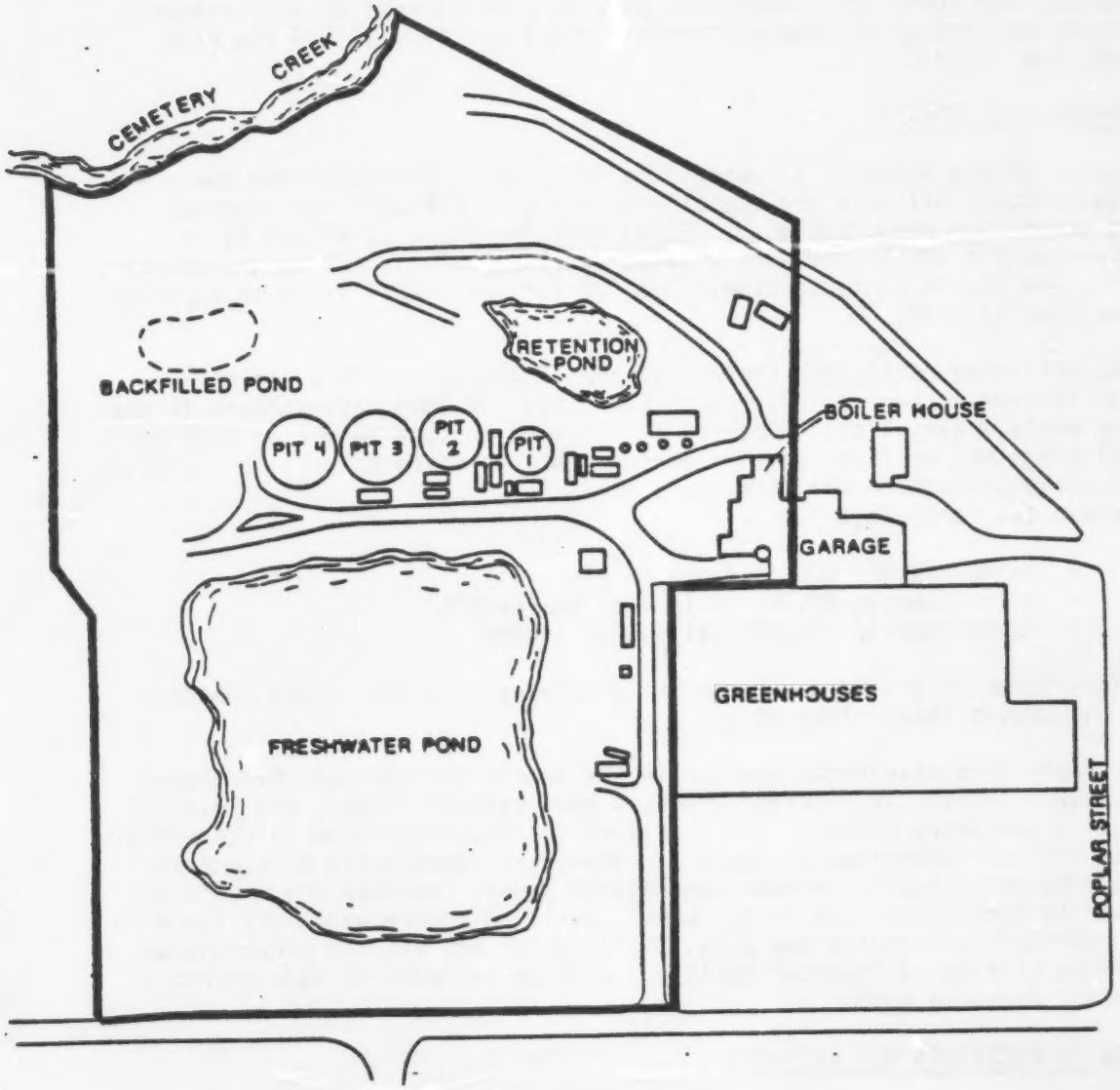


FIGURE 2
SITE MAP
LASKIN/POPLAR OIL

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Several emergency actions have taken place at the site since the U.S.EPA first became involved. During 1982, Superfund planned removal operations removed 302,000 gallons of waste oil, treated and released 430,000 gallons of contaminated water and solidified 205,000 gallons of sludge. In 1985-86, the potential responsible parties (PRP's) removed approximately 250,000 gallons of oil and wastewater from the site. All of the pits have been covered.

CURRENT SITE STATUS

Phase I of the remedial investigation (RI), which characterized the Laskin/Poplar Oil site and identified potential pathways for chemical migration, has been completed. Field work for Phase II of the RI is scheduled for 1QFY88 and will provide detailed information on groundwater, soil, and dioxin contamination. The ROD for the overall site is expected some time in 1988.

Data collected during the Phase I of the RI and by the PRPs has shown that further action is required at the site. Of immediate concern is the bulk waste material still present at the site and the potential risk to public health, welfare, and the environment the waste material presents. The waste present on the site include the following:

- Approximately 6000 gallons of oil
- Approximately 60,000 gallons of wastewater
- Approximately 705,000 gallons of sludge

A more detailed breakdown of the waste volumes is given in the Appendix of the phased feasibility study.

The types of contaminants present in the wastes include polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs). The levels of contaminants found in the waste material are summarized in Table 1. The soils immediately surrounding the pits are expected to have contaminant levels commensurate with those found in the sludges and oils. Lower levels of contaminants are found in the borings surrounding the pits. Soils which are visibly contaminated will be considered "source" soils and will be included in this source removal operable unit.

RISK TO RECEPTORS VIA PATHWAYS

There is a continuing potential for a release of the contaminated liquids and sludges to the environment. A release could occur through fire, natural deterioration of the tanks and their fittings, seepage through the sides and unlined bottoms of the pits, and accidental or deliberate acts. A release from any of these routes would have the potential to contaminate surface water, groundwater, and soil.

TABLE 1

ANALYSIS OF WASTES

	Ranges of Contaminants		
	Oils	Wastewaters	Sludges
METALS (ppm)			
Aluminum		0.04-4.87	28-14,600
Antimony		0.0-0.2	0.0-13
Arsenic		0.0-0.75	0.0-16
Barium	2.0-34	0.021-0.7	6.1-1.270
Chromium	0.0-8.5	0.0-0.074	10-3,420
Copper	0.0-13	0.0-0.224	25-598
Iron	25-295	0.227-74.9	28-4,720
Lead	30-543	0.004-0.62	69-12,400
Magnesium	<20	0.08-47.2	0.0-9,040
Manganese	1.9-8.4	0.014-7.22	0.0-375
Mercury	0.0-0.24	0.0-0.0003	0.0-18
Nickel		0.0-0.291	0.0-82
Zinc	9.0-290	0.267-15.9	18-5,060
Cyanide		0.0-0.03	0.0-5
PCBs (ppm)			
Aroclor 1221		0.0-0.054	
Aroclor 1242 and/or 1016	10-22	0.0-0.024	0.0-94
Aroclor 1254	41-144	41-0.15	0.0-170
Aroclor 1260	0.0-12		
VOLITILE ORGANICS (ppm)			
Methylene Chloride		0.0-2.4	0.0-3,800
Acetone		0.25-46	0.0-97,000
1,1-Dichloroethene			0.0-1.7
1,1-Dichloroethane		0.0-0.12	0.0-5.3
Chloroform		0.0-1.2	0.0-5,100
1,2-Dichloroethane		0.0-0.36	0.0-6,400
2-Butanone		0.0-18	0.0-19,000
1,1,1-Trichloroethane		0.0-0.27	0.0-21,000
Trichloroethene		0.0-0.04	0.0-1,200
Benzene		0.0-0.46	0.0-280
4-Methyl-2-Pentanone		0.0-3.8	0.0-7,400
Tetrachloroethene		0.0-0.01	0.0-750
Toluene		0.0-7.4	22-76,000
Chlorobenzene			0.0-2
Ethylbenzene		0.0-14	14-44,000
Total Xylenes		0.0-3.4	49-140,000
Vinal Acetate			0.0-10

TABLE 1
(cont.)

ANALYSIS OF WASTES

	Ranges of Contaminants	
	Wastewaters	Sludges
BASE/NEUTRALS (ppm)		
1,3-Dichlorobenzene		0.0-120
1,2-Dichlorobenzene		0.0-62
Nitrobenzene	0.0-2.2	
Isophorone	0.0-17	0.0-15,000
1,2,3-Trichlorobenzene		0.0-130
Naphthalene	1.3-15	0.0-34,000
2-Methylnaphthalene	0.45-45	96-5,800
Acenaphthalene	0.0-6.5	0.0-1,000
Acenaphthene	0.11-34	50-6,600
Dibenzofuran	0.25-30	0.0-3,600
Fluorene	0.0-30	0.0-5,000
4-Nitroaniline	0.0-5	
n-Nitrosodiphenylamine	0.0-26	0.0-1,600
Phenanthrene	0.62-97	0.0-12,000
Anthracene	0.14-17	0.0-9,000
di-n-Butyl Phthalate	0.0-2.7	0.0-62
Fluoranthene	0.22-30	0.0-5,300
Pyrene	0.18-35	0.0-5,200
Butylbenzylphthalate	0.0-0.033	0.0-290
Benzo (A) Anthracene	0.0-8.5	0.0-1,400
bis(2-ethylhexyl) Phthalate	0.0-8.5	0.0-370
Chrysene	0.0-51	0.0-1,500
Di-N-Octyl Phthalate		0.0-1,000
Benzo (B) Fluoranthene	0.0-6.2	0.0-95
Benzo (A) Pyrene	0.0-0.44	
Indeno(1,2,3-c,d) Pyrene		0.0-330
Benzo (g,h,i) Pyrene		0.0-350
ACID EXTRACTABLES (ppm)		
Phenol	1.7-53	0.0-34,000
2-Methylphenol	0.0-34	0.0-8,500
4-Methylphenol	0.0-9.5	0.0-22,000
2,4-Dimethylphenol	0.0-16	0.0-2,700
4-Chloro-3-Methylphenol		0.0-140

The route of greatest concern is seepage from the sides of the pits and the unlined bottoms of the pits. Seepage from the pits would have the potential of contaminating groundwater and soil. Groundwater samples taken by EPA contractors and soil samples taken from around the pits indicate releases have already occurred. The soils immediately surrounding the pits are expected to contain contaminants at levels similar to those found in the sludges and oils in which they are in contact. The continued presence of these waste materials would allow more seepage to occur.

There is a potential for fire at the site. The wastes in Pit 2 have a flash point of only 80-85 F, and much of the oils and sludges have high BTU values. A fire, started by whatever means, could create a contaminated smoke plume and could release contaminated materials to the site and surrounding area.

Based on surface topography, contaminants released on site have the potential of being carried into Cemetery Creek. Cemetery Creek empties into the Grand River which supplies the drinking water for approximately 25,000 people in Ashtabula County.

PCBs

PCBs are absorbed through the lungs, the gastrointestinal tract, the intact skin, and (in experimentally exposed animals) the eyes. After absorption, PCBs circulate through the body in the blood and accumulate in the liver, adrenal glands, and skin.

The most significant concerns from PCBs are the chronic effects which are manifested over prolonged, but not necessarily continuous, exposure to low levels. Many of the toxic effects in mammals have been noted at extremely low levels of exposure, in several species at dietary levels of only 1.0 to 2.5 ppm or less. The toxic effects of PCBs in humans have been reported both as a result of occupational exposures and in the general population. PCBs have been shown to be carcinogenic in rats and mice, and there is evidence that it might cause stomach and liver cancer in humans. The Office of Health and Environmental Assessment (OHEA) of the U.S.EPA developed health advisories for PCBs in soil. The OHEA assessment concluded that a PCB level of 1 to 6 ppm in soil in a residential/commercial area would be associated with a 1x10-5 level of oncogenic risk.

The levels of PCBs in the oils are above 50 ppm in every sample taken and are as high 170 ppm. The levels in the sludges are generally greater than 20 ppm and are found as high as 238 ppm. The levels of PCBs found in the borings nearest to the pits, approximately 4 to 6 feet, are below 3 ppm.

METALS

Lead is the metal of primary concern found in the waste material. The main routes of exposure for lead are inhalation and ingestion. The Centers for Disease Control (CDC) have stated that soil and dust levels of greater than 500-1000 ppm appear to be responsible for blood levels in children increasing above background levels. The major health effects associated with lead concern damage to the hematopoietic and neurological system. Lead can cause renal dysfunction, and is known to be teratogenic to animals. There is evidence that young children are more sensitive to the toxic effects of lead than are adults.

The levels of lead in the oils range from 30-543 ppm. The level of lead in the sludges range from 69-12,400 ppm.

POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

A number of PAHs were identified in the base/neutral analysis for the sludges. As a group, PAHs are persistent in the environment. Some PAHs are carcinogenic and mutagenic. Materials such as tars and oils, known to contain PAHs, have been shown to be carcinogenic to humans. According to the regional spokesperson for the Agency for Toxic Substances and Disease Registry (ATSDR), CDC considers total average PAH levels of up to 100 ppm in residential areas and 1000 ppm in comercial areas acceptable.

The levels of total PAHs in the sludges range from 428 ppm to over 82,000 ppm.

VOLATILE ORGANIC COMPOUNDS (VOCs)

No health based standards for VOCs in soil currently exist. However, some of the VOCs found at the site are considered toxic or are carcinogens. A number of the VOCs in the sludges can be found at levels greater than 10,000 ppm. The level of VOCs in the closest soil borings to the pits can be found at greater than 1 ppm.

ENFORCEMENT HISTORY

State actions at the Laskin/Poplar Oil site include a complaint filed in the Ashtabula County Court of Common Pleas in April 1979 for air and water pollution violations. The owner/operator was found liable by the court and ordered to cleanup the site. The owner/operator was found in contempt of court on several occasions and a receiver was appointed for the business by the Ashtabula County Court of Common Pleas court on December 22, 1980. The owner/operator entered into a consent decree with the Federal Government on January 21, 1981. The consent decree required the owner/operator to cleanup the site, halt discharge of contaminated water to Cemetary Creek, and abide by TSCA PCB rules.

After several emergency fund-financed removals between 1980 and 1983, a unilateral Administrative Order (AO) was issued to four PRPs in August 1984. This AO required the removal and incineration of the bulk of the contaminated oil and treatment of the contaminated water that was contained in the pits and tanks on site. This order was complied with during the winter of 1985-86.

A second unilateral AO, to eight PRPs, was issued in July 1986. This order, which originally required the removal and incineration of the remaining sludge, was amended in September, 1986. The amended AO required the development of a workplan to remove and incinerate the sludge and to sample the soils around the in ground pits. This workplan was submitted in March 1987.

Additionally, while these administrative enforcement activities were taking place, the U.S.EPA was pursuing a cost recovery action to recover the monies spent on the emergency actions. The first complaint was filed in June 1984. Amended complaints were filed in December 1984, July 1985, and October 1986. Currently there are eleven defendents in this action including the owner/operator, the operating company (Poplar Oil Co.), a finance company, and eight corporations which generated wastes sent to the site. These defendents have sued an additional 600 third parties, have settled with approximately 30, and have since dismissed another 30 for lack of evidence. Settlement discussions on this action are on-going.

COMMUNITY RELATIONS HISTORY

U.S.EPA's community relations activities at the Laskin/Poplar Oil site date back to 1981, when the agency conducted emergency actions to prevent oil from leaching off the site. Between July and November, 1982, U.S.EPA conducted a removal at the site which resulted in the elimination of the site's most imminent hazards. A Community Relations Plan (CRP) was prepared and implemented during that time.

The public comment period for this operable unit stated on August 10, 1987 and went through September 11, 1987. On August 18, 1987, a public availability session was held at the Jefferson Courthouse, giving area residents an opportunity to meet and talk with staff about site activities. On August 26, U.S.EPA held a public meeting to accept comments on the feasibility study for the source material removal operable unit.

Health issues have and continue to be a major source of concern for the citizens. Concerns center around the pathways of possible exposure to contaminants during the period of the site's operation. These include exposure to the burning of PCB contaminated oil, the road spreading of the oil, and the presence of dioxin. Questions and comments posed by the community and the PRPs are included in the attached responsivness summary.

ALTERNATIVES EVALUATION

The major objective of the phased feasibility study (PFS) is to evaluate remedial alternatives for the removal of source material from the Laskin/ Poplar Oil site. Source material includes the sludges, oils, and wastewaters as well as highly contaminated soils. The clean-up approach established for this operable unit was developed to address the materials which may serve as a source for further site contamination and is not meant to serve as the final remediation level for the site. All attempts have been made to keep the actions of this operable unit consistent with the final remedy to the extent it can be anticipated.

The remedy selected will be consistent with the goals and intent of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and the National Oil and Hazardous Substances Contingency Plan (NCP) (40 CFR Part 300 et. seq., 47 Federal Register 31180, July 16, 1982).

An environmental assessment presented in Chapter 2 of the PFS determined that source control measures are needed at the site. A list of appropriate remedial response technologies was identified. Each technology was screened based on its technical feasibility and implementability. The following technologies were considered appropriate technologies:

Oils/Sludges/Soils
- On-site containment
- Off-site containment
- On-site land treatment
- On-site incineration
- Off-site incineration
- On-site incineration/ Off-site containment

Wastewaters
- On-site treatment
- Off-site treatment

Tanks
- Dismantling/Off-site disposal

Technologies which were eliminated from further consideration include on-site containment, on-site land treatment, and on-site wastewater treatment. The on-site containment option encompased the placement of the source soils and the waste from the tanks and pits into an on-site waste disposal unit. This option was not considered implementable due to the impending November 8, 1988 deadline imposed by the Land Disposal Restrictions. The Land Disposal Restrictions prohibit the land disposal of all wastes included on the California List and solvent wastes from

catagories F001-F005. The design, construction, disposal, and closure would all need to be finished prior to the November 8, 1988 deadline. Land treatment was not considered technically feasible for the treatment of the levels of PCBs and halogenated organics found in the waste materials. On-site wastewater treatment was not considered technically feasible, based on the volumes expected and the difficulty in achieving discharge requirements due to the wide variety of organics compounds and levels of lead found in the waste. The wastewaters would be more suited for treatment at a comercial wastewater facility.

Remedial action alternatives were developed from the remaining technologies. These alternatives were then compared on cost effectivness, protectiveness to the public and the environment, and compliance with the requirements and intent of SARA. A comparative evaluation of the alternatives is shown in Table 2.

Alternative 1

Under this alternative, no remedial action would be taken at the site. The threat to public health and the environment, as described earlier and in the FS, would remain.

Alternative 2

Alternative 2 consists of solidifying all of the liquid wastes and placing all of the source material in a licensed TSCA or RCRA facility as appropriate. All tanks would be dismantled and taken off-site. The pit area would be backfilled with on site soils and graded to preclude ponding.

No long term maintenance or monitoring at the Laskin/Poplar Oil site would be required under this alternative. However, the waste would not be treated prior to landfilling at the licensed facility. The long term dependability of any landfill is unknown. The cost estimate for Alternative 2 is $4.2 million.

Alternative 3

Alternative 3 combines on-site incineration of the oils, sludges, and source soils with off-site treatment of the wastewaters, decontamination water, and scrubber water. The incinerator ash and dismantled tanks would be disposed in an off-site RCRA licensed facility. If tests indicated that the ash could be delisted, the ash could be sent to a sanitary lanfill. The excavated pit area would be backfilled with onsite soils and graded to preclude ponding.

This option would not require any long term maintenance or monitoring at the site. All source material would be treated to the greatest extent practicable. The cost estimate for alternative 3 is $8.5 million.

Table 2

ALTERNATIVES EVALUATION SUMMARY MATRIX

	No Action	Off-site Containment	On-site Incineration	Off-site Incineration	On-site Incineration Off-site Containment
ORDER OF MAGNITUDE COSTS	$0	$4,199,805	$8,490,865	$12,141,355	$5,724,418
TECHNICAL CRITERIA					
Feasibility	Not Applicable	+ Alternatives Commercially available • Land Disposal Restriction deadline 11/8/88	+ Alternative is commercially available +	+ Alternative is commercially available +	+ Alternatives commercially available +
Implementability	Not Applicable				
PUBLIC HEALTH AND ENVIRONMENT CRITERIA	- Potential for chemical migration likely	• Wastes not treated Long-term dependability of landfill unknown	+ All wastes permanently treated	+ All wastes treated permanently treated	• Over half the wastes untreated Long-term dependability of landfill unknown
EXTENT OF PERMANENT TREATMENT USAGE	- No treatment is involved	- No treatment is involved This is the least favored option under SARA	+ Treatment is used to the greatest extent practicable	+ Treatment is used to the greatest extent possible	• Less than half of the waste is treated. Landfilling without treatment is the least favored under SARA.

Alternative 4

Alternative 4 utilizes off-site incineration for all oils, sludges, and highly contaminated soils. All wastewaters and decontamination water would be treated at an off-site treatment facility. The tanks would be demolished and disposed of at a licensed facility off-site. The excavated areas would be backfilled with on-site soils and graded to preclude ponding.

This option would not require any long term maintenance or monitoring at the site. All source material would be treated to the greatest extent practicable. The cost estimate for Alternative 4 is $12.2 million.

Alternative 5

Alternative 5 includes on-site incineration of all oils and sludges as well as soils with greater than 25 ppm PCBs or 500 ppm total halogenated organics. The remainder of soil excavated from the tank and pit areas would be landfilled off-site at a RCRA licensed hazardous waste facility along with all dismantled tanks. All wastewaters, decontamination water, and scrubber water would be treated at an off-site treatment facility. The excavated areas would be backfilled with on-site soils and graded to preclude ponding.

This alternative would not require any long term maintenance or monitoring at the site. The most highly contaminated source material would be permanently treated. However, the soils that would be landfilled, which comprise roughly one half of the source material, would not be treated. The off-site disposal of waste without treatment is the least favored option under SARA. The cost of Alternative 5 is $5.8 million.

With the exception of no action (Alternative 1), all of the alternatives would effectively and permanently minimize the danger to the public health and the environment at the site area through the removal of the contaminated material.

The use of an off-site landfill (Alternative 2 and 5) is conventional, easy to implement, and transfers the operation and maintenance to the owner/operator of the landfill. The most significant disadvantage of this option is that it does not treat the contaminants, so there is no reduction in toxicity, volume, or mobility. It also may be difficult to maintain the long term integrity of hazardous waste landfills as required by the U.S.EPA's off-site policy. The off-site disposal of contaminated materials without treatment is the least preferred option under SARA.

The off-site incineration of the source materials (Alternative 4) offers the advantage of permanently destroying the contaminants in the waste material and the soils. It is a proven technology that transfers operation and maintenance to the owner/ operator of the incinerator facility. One the most significant disadvantage of this alternative is implementability. The material must be packaged in small fiber drums for transportation. The facilities available have commitments to their regular clients which control when and at what rates the source material can be taken care of. In addition, a number of off-site hazardous waste incinerators have shown a reluctance to accept the waste material due to the high levels of lead found in some of the sludges. Tramsportation of the waste to an off-site facility increases both the cost of this alternative and the risks posed to the public by movement of contaminated materials on the highways.

As with off-site incineration, on-site incineration (Alternative 3 and 5) would utilize a proven technology to permanently destroy the contaminants in the source material. The advantages of this alternative are that the packaging requirements necessary for off-site incineration would be avoided, and all material could be processed in one year or less once the incinerator begins operation. This alternative also meets the goal of SARA of implementing a remedial action which incorporates treatment rather than land disposal where practicable.

A comparison of the alternatives on the basis of protectivness of public health and the environment shows that on-site and off-site incineration provide a high level of protection. Alternatives which use a high degree of landfilling provide an equal level of protection in the short run. The long run dependability of landfills, however, are unknown. There would be no beneficial impacts associated with the no action alternative.

Any detrimental environmental effects associated with the waste and soil removal operations would essentially be the same for each alternative except the no action alternative. These short term negative impacts could be minimized using proper construction methods.

The State of Ohio and the U.S.EPA expressed preference for remedial actions that would provide destruction of hazardous constituents in lieu of transporting untreated wastes to a RCRA approved location. Section 121(b)(1) of SARA states "Remedial actions in which treatment which permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances, pollutants, and contaminants is a principal element, are to be preferred over remedial actions not involving such treatment. The offsite transport and disposal of hazardous substances or contaminated materials without such treatment should be the least favored alternative remedial action where practicable treatment technologies are available."

Thus, the U.S.EPA emphasizes the need to consider treatment, recycling and reuse before off-site land disposal of hazardous substances from CERCLA sites is used. In addition, Section 300.68(h)(1) of the NCP provides that remedial alternatives should not be eliminated on the basis of cost alone. Therefore, other long term benifits should be analyzed when comparing alternatives.

Environmental benifits which would accrue as a result of selecting an incineration option over a land disposal option are:

1) permanent destruction of the PCBs, PAHs, VOCs, and other organics found in the source material,

2) elimination of the risk of release of hazardous substances to the environment and reduction of the health risk associated with this exposure, and

3) elimination of the need for governmental authorities to perform the environmental monitoring at the site would be necessary if the wastes were left on site or relocated to another site.

CONSISTENCY WITH OTHER ENVIRONMENTAL LAWS

The technical aspects of the remedial alternative inplemented at the Laskin/Poplar Oil site will be consistent with all federal and state applicable or relavent and appropriate requirements (ARARs). Other environmental laws which may be considered ARARs to the remedial alternatives evaluated are the Resource Conservation and Recovery Act (RCRA), the Toxic Substance Control Act (TSCA), the Clean Air Act. Chapters 3704 and 3734 of the Ohio Revised Code (ORC), and Section 3745-15, 17, and 18 and 21 as well as Section 3745 - 50 through 3754 - 69 of the Ohio Administrative Code.

The specific provisions of RCRA which may serve as ARARs for the alternative chosen include the thermal destruction requirements (40 CFR Subpart P, Section 265.370 through 265.383), the incinerator requirements (40 CFR Subpart O, Section 265.340 through 265.369). These provisions list the proceedures and requirements which must be complied with during the thermal destruction of the waste material. These reqirements are also included in OAC rules 3745-57-40 to 3745-57-99 and OAC rule 3745-50-62. The off-site wastewater treatment requirements (40 CFR Parts 262 and 263) could also be considered an ARAR.

The selected remedy involves placement and treatment of soils and debris wastes. Placement of wastes or treated residuals is prohibited under RCRA Land Disposal Restrictions (LDR) unless certain treatment standards are met. LDR standards have not been published for soil and debris wastes, but when published, the standards may be applicable or relevant and appropriate. Despite the absence of specific treatment standards, the treatment method employed as part of this remedial action satisfies the statutory requirement to, "...substantially diminish the toxicity of

the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health and the environment are minimized." [sec. 3004 (m) H.S.W.A.]

Emissions from the incinerator would be covered under the Clean Air Act, ORC Chapter 3704, and OAC Sections 3745-15, 17, 18, and 21. Off-site transportation of hazardous waste is covered under OAC 3745-53-11. This requires the transporters of hazardous waste to register with the Public Utilities Commission of Ohio and to obtain Ohio transporter registration numbers. These requirements will be met during the remedial action. ARARs will only be waived under the conditions set forth in Section 121(d)(4) of SARA. This action is considered an interim measure. Therefore, no final cleanup levels have been determined. The final cleanup levels will be determined at the completion of the overall site RI/FS.

RECOMMENDED ALTERNATIVE

It is recommended that Alternative 3 be selected. This alternative consists of the following:

- Construction of a fence around the contaminated portions of the site and the on-site incinerator
- On-site incineration of oils, sludges, and "source" soils
- Off-site treatment of all wastewaters, decontamination water, and scrubber water
- Off-site disposal of all incinerator ash
- Dismantling and off-site disposal of all tanks
- Crushing and incineration of the cinder block walls of the pits
- Backfilling and/or grading of all excavated areas to preclude ponding

Based on the comparison of alternatives, the recommended alternative is fully protective of public health and the environment, cost effective, utilizes treatment technology to the maximum extent practicable, and will meet all applicable, or relevant and appropriate federal and state requirements. It has an estimated cost of $8.5 million.

DESCRIPTION OF RECOMMENDED ALTERNATIVE

At the inception of the remedial action, the site would be fenced to reduce access to the contamination on site and the equipment used for the remedial action. Site access would only be granted on an as needed basis.

On-site mobile incinerators are a proven and available technology. Based on vendor information, both infrared and rotary kiln mobile incinerators

would be capable of achieving the 99.9999% destruction efficiencies required for PCB wastes. Both units have air scrubber systems capable of effectively removing air emission constituents to the levels needed to meet all federal and state ARARs. Air emission levels would be specified during the remedial design process. The attainment of these levels would be required.

The soils could be used to condition the sludges to aid in material handling. The oils found on site could be used as a supplemental fuel source for the sludges and soils. The cinder block walls of the pits would be crushed and combined with the oils, sludges, and soils to be burned.

All ash generated during the incineration process would be tested to determine the appropriate method of off-site disposal. If the test results indicate that the ash should be classified as a hazardous waste, it would be sent off-site to a RCRA licensed landfill for disposal. The transportation of the ash would be conducted by a company experienced in hazardous waste handling. The company would be required to have all necessary permits, manifests, and insurance. If the ash can be delisted, it could be sent to a sanitary landfill.

Off-site wastewater treatment is technically feasible and has been used for earlier wastewater removed from the site. All decontamination water and scrubber water would be disposed of in a similar fasion. An experienced hazardous waste hauler would be used to transport the waters.

After all waste has been removed from the tanks, the tanks wiil be dismantled for transportation and disposal at an off-site RCRA facility. The exact method of dismantling could include flame, hydraulic, or other technique that could be safely carried out on site. The choice of demolition method will be made during remedial design activities, or during the removal operation, based on site conditions.

All areas which have been excavated will be backfilled with on-site soils and/or graded to preclude ponding. Site runoff from the area will be directed to the existing retention pond.

The source removal is intended solely as an interim measure. The cleanup levels used will not necessarily be the final remediation level for the site. The final levels will be determined during the overall site RI/FS. All attempts have been made to keep the remediation efforts associated with this operable unit consistent with the final remedy to the extent that it can be anticipated.

The intent of this operable unit is to remove the the source material still present on the Laskin/Poplar Oil site. To be consistent with the intent, the operable unit must deal with the soils which have become significantly contaminated due to the bulk movement of the oils and sludges. Therefore, the soils surronding the pits and in the tank area will be

removed until the remaining soils are visibly clean. The remaining soils will be sampled and analyzed for the full hazardous substance list prior to backfilling and grading. This will aid in the overall site cleanup.

The following is a cost estimate for the recommended alternative.

Site preparation, mobilization, demobilization and permiting	$1,500,000	
Conditioning and incineration of wastes and soils	$4,377,500	@ $500/ton
Transportation of 4340 tons of ash to the landfill	$244,125	20 tons/load 300 miles @ $3.75/mi.
Disposal cost for 4340 tons of ash	$651,000	4340 tons @ $150/ton
Transportation and disposal of scrubber and decon. water	$350,200	875,500 gal. @ $0.40/gal
Tank cutting and decontamination	$200,000	
Transportation of 245 tons of dismantled tanks	$ 13,785	20 tons/load 300 miles @ $3.75/mi.
Landfill costs for 245 tons	$ 36,750	245 tons @ $150/ton
Pit backfilling and grading	$ 10,000	
Indirect costs including engineering services and contingencies	$1,107,505	15% Of all costs
Total	$8,490,865	

OPERATION AND MAINTENANCE

The preferred alternative will require operation and maintenance costs associated with the start-up (including the trial burn) and the operation

of the mobile incinerator. These costs would be limited to the period of time when the incinerator would be operating, which has been estimated to be approximately one year and is included in the cost estimate. There is no long term operation or maintenance associated with this alternative. No long term monitoring will be required.

SCHEDULE

The following schedule of activities povides projected milestones for the work to be performed at the Laskin/Poplar Oil site.

Approve Remedial Action (ROD)	September 1987
Design Award (Notice to Proceed)	January 1988
Design Completion	April 1988
Award Contract	July 1988
Begin Remedial Action	September 1988
Complete Remedial Action	September 1989

FUTURE ACTIONS

A work plan was completed in August 1987 for Phase II of the RI for the site. A ROD for the overall site cleanup is scheduled for September 1988. The overall site RI/FS will deal with groundwater, dioxin, and overall soil contamination.

LASKIN/POPLAR OIL SITE
JEFFERSON OHIO

RESPONSIVENESS SUMMARY

The United States Environmental Protection Agency (U.S. EPA) recently held a public comment period from August 10, 1987 to September 11, 1987 for interested parties to comment on U.S. EPA's August 1987 Phased Feasibility Study (PFS) and Proposed Plan for a source removal operable unit at the Laskin/Poplar Oil site. At the time of the public comment period, U.S. EPA had announced its recommended alternative for the removal of the source material.

The purpose of this responsiveness summary is to document U.S. EPA's responses to comments received during the public comment period. All of the comments summarized in this document will be factored into U.S. EPA's final decision. Since the purpose of this comment period was to receive comments specifically related to the PFS, comments related to the overall Remedial Investigation/ Feasibility Study (RI/FS) or the Superfund program as a whole will be addressed at a later time. A number of comments were received well after the closing date of the public comment period. U.S. EPA has not responded to those comments, except to the extent that many of the same comments were made in timely submissions.

This responsiveness summary is divided into the following sections:

I. Responsiveness Summary Overview - This section briefly outlines the proposed remedial alternatives as presented in the PFS including the recommended alternative.

II. Summary of Public Comments and U.S. EPA Responses - This section summarizes both written and oral comments received from the community and the local officials and the U.S. EPA's responses. The comments are organized by subject area.

III. Summary of Potential Responsible Party (PRP) Comments and U.S. EPA Responses - This section summarizes both written comments received from the PRPs and the U.S. EPA responses. The comments are organized by subject area.

I. RESPONSIVENESS SUMMARY OVERVIEW

A. Proposed Alternatives and Recommended Alternative

The PFS identifies and evaluates alternate source control options. The alternatives range from no action to complete and permanent treatment. The alternatves were screened and evaluated based on their technical feasibility, implementability.

Five alternatives passed the initial screening and were compared in detail. The five alternate included:

1. No action;
2. Off-site Containment;
3. On-site Incineration;
4. Off-site Incineration;
5. On-site Incineration/Off-site Containment.

These five alternatives were then subjected to a detailed evaluation of their effectiveness, compliance with the Superfund Amendments and Reauthorization Act, and cost effectiveness. The U.S. EPA's recommended alternative is the on-site incineration of all source material on the site. Groundwater, soil, and dioxin contamination will be covered in the overall RI/FS for the site.

B. Public Comments on the Remedial Alternatives

Public comments were received from the Village of Jefferson trustees, the Ohio Environmental Council, and citizens of Jefferson.

C. PRP Comments on the Remedial Alternatives

The following entities submitted comments on behalf of the PRPs:

- Baker & Hostetler, Counsellors at Law, on behalf of Browning-Ferris Industries of Ohio, Inc., General Motors Corporation; TRW Inc., Rockwell International Corporation; Koppers Company, Inc., and Be-Kan, Inc.
- Squire, Sanders, & Dempsey, Counsellors at Law, on behalf of Ashland Oil, Inc., Cleveland Electric Illuminating Company, Consolidated Rail Corporation, White Consolidated Industries,

Shell Oil Company, Mobil Oil Company, Sun Refining and Marketing Company, Inc., Matlack, Inc., Anchor Motor Freight, Inc. and Eliskim, Inc.

- Freedman, Levy, Kroll & Simonds, Counsellors at Law on behalf of Perfection Corporation.

- Keystone Environmental Resources, Inc on behalf of Be-Kan, Inc., Browning-Ferris Industries of Ohio, Inc., General Motors Company, Koppers Company, Inc., Rockwell International, Inc., and TRW, Inc.

II. SUMMARY OF PUBLIC COMMENTS AND U.S. EPA RESPONSES

This responsiveness summary addresses both oral and written comments received by U.S. EPA concening the Phased Feasibility Study (PFS) for the Laskin/Poplar Oil site. The comment period was held from August 10, 1987, to September 11, 1987. A public meeting was held on August 26, 1987, at the Ashtabula County Courthouse, as an oppurtunity for the public and other interested parties to present oral and written comments to the U.S. EPA. These comments are recorded in a transcript of the meeting which is available at the Information Repositories in Ashtabula and Jefferson, Ohio, and the U.S. EPA Region V office in Chicago. The written and oral comments are summarized and organized into the following categories:

A) The remedial alternative;

B) Additional site work; and

C) General.

A. Remedial Alternative

- A number of the comments received from the village trustees and the community supported the U.S. EPA's recommendation of an on-site mobile incinerator.

U.S. EPA's Response:

The U.S. EPA is pleased that the community and local officials support the recommended alternative.

- A number of the comments expressed a concern regarding site security and access.

U.S. EPA's Response:

Areas of the site which are known to be contaminated are currently enclosed in a property fence. As an initial step of this proposed remedial action a chain link fence will be constructed. The exact extent of the fencing will be determined once initial sample results are received from the Phase II RI for the overall site and the incinerator location is chosen. Site access during the remedial action will be on an as needed basis only.

- One commentor wanted to know what equipment would be removed.

U.S. EPA Response:

This remedial action will result in the removal of the tanks and pits. At the end of the action, the mobile incinerator will be removed. The boiler stack, boilers, and other site features will be dealt with in the overall RI/FS.

B. Additional Site Work

- One commentor was concerned that dioxin was not mentioned in the PFS.

U.S. EPA Response:

Dioxin is not present in the areas covered by this action and so was not mentioned. Dioxin contamination is being considered in the overall site RI/FS.

C. General

- A number of commentors stated that local contractors should be used as much as possible.

U.S. EPA Response:

If the work is to be performed by the U.S.EPA, selection of the contractors will be in accordance with applicable federal regulations. Therefore, bids will be solicited in a manner which will allow all qualified contractors capable of performing the work to bid on the project. Out of town contractors often rely on local contractors for many of the tasks. Information on becoming involved in CERCLA actions was given to Michael Wheeler of the Ashtabula County Disaster Services.

- A commentor felt that the public should be kept informed of EPA's schedule of activities.

U.S. EPA Response:

The U.S. EPA agrees. The community relations department has made a commitment to keeep the public abreast of U.S. EPA actions.

III. SUMMARY OF PRP COMMENTS AND U.S. EPA RESPONSES

This responsiveness summary addresses the written comments submitted by or on behalf of the PRPs. The comment period was held from August 10, 1987, to September 11, 1987. A copy of the comments submitted are available in the Information Repositories in Ashtabula and Jefferson, Ohio and the U.S. EPA Region V Office in Chicago. The comments are organized into the following categories: A) EPA Authority, B) Remedial Alternatives, C) Time Limits, D) Funding, and E) General. The U.S. EPA responses are provided for each comment, or set of like comments.

A. EPA Authority

Commentors felt the U.S. EPA lacks the authority to perform the remedial action. The specific comments are listed below.

Comment:

- The U.S. EPA lacks authority to perform the Phased Feasibility Study and to take the proposed remedial action, due to the 1 year, $2 million limits set forth in Section 104 of CERCLA.

U.S. EPA's Response:

The 1 year, $2 million limits set forth in section 104 of CERCLA apply to emergency response action, not to remedial actions. The Phased Feasibility Study and the subsequent remedial action are not being performed under the emergency response authority, but under the remedial authority.

Comment:

- Under the Superfund Act, U.S. EPA may only perform remedial actions at the Laskin/Poplar Oil site if that action is necessary as a result of a release or threatened release of hazardous substances from the

site. Section 101(14) of Superfund states:

> "The term [hazardous substance] does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquified natural gas, or synthetic gas usable for fuel (or mixutures of natural gas and such synthetic gas)."

The issue is also discussed in the U.S. EPA General Counsel Memorandum, July 31, 1987. The PRPs feel the oil excusion implies the oil part of the waste material cannot be dealt with in the operable unit.

U.S. EPA Response:

The July 31, 1987 General Counsel discussion of the CERCLA Petroleum Exclusion set forth in Sections 101(14) and 104 (a)(2), referred to by the commentor, specifically states on pg. 8:

> " However, it was clear that the omission of oil coverage was intended to include spills of oil only, and there was no intent to exclude from the bill mixtures of oil and hazardous substances."

The memorandum continued on pg. 10:

> " In fact, one of the petroleum-hazardous substances mixtures most often mentioned during the debates was that of PCB contaminated oil which is a type of contamination arguably resulting from the "normal use" of the oil in transformers. Accordingly, an interpretation of the petroleum exclusion which includes as "petroleum" hazardous substances added during use of the petroleum would not be consistent with Congressional intent."

The situation at the site clearly falls within the authority of Superfund. The oils on site are mixed with a variety of volatile organic compounds, PCBs, and metals, and creosote wastes which are all listed as hazardous substances under Superfund. Creosote wastes, which are derivatives of wood and coal tars, not petroleum products, are a source of polynuclear aromatic hydrocarbons (PAHs), which are also classified as hazardous substances.

B. Remedial Alternatives

A number of comments were received questioning the U.S. EPA's choice of cleanup levels. These comments dealt with the reasoning behind the U.S.EPA's choice of cleanup levels and the consistency of the cleanup levels with the final remedy. Based on these comments, the U.S.EPA has

reconsidered the chosen cleanup levels. Based on the intent of the operable unit, to remove the source material found on site, and the desire to be consistent with the overall site remedy, the U.S.EPA has modified its cleanup level. The new cleanup level will require the removal of soils from around the pits and in the tank area until the remaining soils are visibly clean. This cleanup level is consistent with the intent of the operable unit and minimizes the likelihood that soils will be removed past the levels which will be determined in the overall site RI/FS. The specific comments made on behalf of the PRPs are discussed below.

Comment:

- The 5 ppm PCB cleanup level is inconsistent with the "National TSCA Policy". The national policy should govern the cleanup level at CERCLA sites. There is no reference to "Regional Policy" in Section 121 of CERCLA.

U.S. EPA's Response:

As mentioned earlier, the U.S. EPA will not be using the 5 ppm PCB action level for this operable unit. The soil shall be removed until it is visibly clean. Therefore, the issue is moot.

The regional policy approach, however, is fully consistent with and supported in the National TSCA Policy referenced. The national policy states in 40 CFR Part 761, pg. 10689:

> "Therefore, spills which occurred before the effective date of this policy are to be decontaminated to requirements established at the discretion of EPA, usually through its regional offices."

Just as importantly, the TSCA policy does not supercede CERCLA policy. The TSCA rule specifically states on pg. 10690:

> " However, other statutes require the agency to consider different or alternative factors in determining appropriate corrective actions."

The policy continues:

> " Thus, cleanups under other statutes, such as RCRA corrective actions or remedial or emergency response actions under SARA, may result in different outcomes."

Comment:

- The draft is totally lacking in any explanation of why the Region is assuming that Laskin site must be considered a "residential area". Why can this not be considered a "restricted area", where National Policy allows much higher levels?

U.S. EPA's Response:

The site is considered a residential area for three reasons. First the site owner/operator has his residence on the property. Second, National Policy defines residential/commercial areas as areas where people live or reside or where people work in other than manufacturing or farming industries. It also specifically includes playgrounds and parks. Areas which are less than .1 km from a residential/commercial area are considered as such even where access is restricted. Immediately across the street from the Laskin property is the Ashtabula County Fairgrounds and a set of softball fields. On the property itself there is a freshwater pond which people fish. Third, under current zoning, the property can be developed residential.

Comment:

- Why has the Region not considered the idea of covering the area with 10 inches of clean soil, which would allow for higher levels even in residential areas?

U.S. EPA's Response:

The use of a 10 inch soil cover was not considered by the Region because the operable unit is only an interim remedy. Since contaminated soils will remain onsite, the possibility exists for the clean soil to become contaminated or to be mixed with contaminated soil if further soil remediation is required. This could result in a larger volume of soil requiring further remediation and would not be cost effective. Also, the addition of soil would not do anything to prevent further contamination of the groundwater.

Comment:

- Soil removal should be left until overall site cleanup levels are established. This is necessary to assure that the remedial action is cost effective and consistent with the rest of the site.

U.S. EPA Response:

As documented in the endangerment assessment included in the feasibility study, the sludges and oils contain hazardous substances at levels above

current health based standards.

It is the U.S. EPA's feeling, due to the fact that the pit bottoms are unlined, that the oils and sludges in the pits have been in direct contact with some soils. These soils are saturated with the contaminants and therefore can be considered source material. Leaving these soils on site would not be appropriate in terms of protectiveness to public health and the environment, would not be consistent with the intent of the remedial action, and would significantly increase the chances that a mobile incinerator would need to be returned to the site. This remobilization would be costly.

We understand the PRPs concern regarding unnecessary work during this remedial action and have reviewed the cleanup criteria to be used. Based on this review, the U.S. EPA has chosen a cleanup approach which it feels is consistent with the intention of removing the source material, protective of public health and will minimize the chance of removing material beyond final cleanup levels.

The chosen cleanup level requires that all soils around the pits and in the tank area which are visibly contaminated will be removed. The fact that the soils are visibly contaminated indicates that bulk movement of the source material has occurred. It would not be reasonable to leave these soils until the completion of the final RI/FS.

The commentors also felt that the Land Disposal Regulations had been misinterpreted. They felt that they would not apply to the conditions at the site. The comments are presented below:

Comment:

- Leache concentrations based on the Toxicity Characteristic Leaching Procedure (TCLP) should be used in determining whether or not land disposal restrictions apply. This is based on the land ban "correction" notice of June 4, 1987. The PFS bases its conclusions on actual waste concentrations.

U.S. EPA's Response:

Use of leachate concentrations based on the TCLP was implicitly stated in the November 7, 1986 Land Disposal Restrictions and later explicitly stated in the the June 4, 1987 corrections. The leachate concentrations only apply to the solvent wastes F001-F005 which the PFS states some of the wastes could be considered. The levels in the sludges are such that the U.S. EPA feels they would have leachate concentrations above the limit. The levels are presented below.

Contaminant	Maximum Concentration Found	Allowable Leach
Mehylene Chloride	3,800 ppm	.86 ppm
Acetone	97,000 ppm	.59 ppm
1,1,1-Trichloroethane	21,000 ppm	.41 ppm
Trichloroethene	1,200 ppm	.091 ppm
Tetrachloroethene	750 ppm	.05 ppm
Toluene	76,000 ppm	.33 ppm
Xylene	140,000 ppm	.15 ppm
Ethylbenzene	44,000 ppm	.053 ppm

In addition, liquid, PCB containing wastes are covered under the California List when they are contained in wastes which are listed as hazardous under 40 CFR Part 261, or if the mixture exhibits one or more of the characteristics of hazardous waste identified in that Part. PCBs are banned from land disposal if the total waste concentration (not an extract or filtrate) exceeds 50 ppm PCBs.

Wastes containing halogenated organic compounds (HOCs) are subject to the California List prohibitions if the waste is listed as a hazardous waste under 40 CFR Part 261, or exhibits one or more characteristics of hazardous waste identified in that Part. The land disposal prohibition applies to hazardous wastes containing HOCs in total concentrations greater than 100 mg/l (liquids) or 100 mg/kg (non-liquids). This is based on total waste concentration (not an extract or filtrate).

Comment:

- Is the Regions interpretation that the land ban would be triggered at the Laskin/Poplar Oil site consistent with Headquarters policy?

U.S. EPA Response:

The current interpretation in Headquarters regarding what triggers the Land Disposal Restrictions is that when the wastes are removed from their present location for treatment or disposal the Land Disposal Restrictions are triggered. On-site containment of the wastes would require the removal of the liquids and sludges for solidification, thus triggering the restrictions.

Based on the Land Disposal Restriction, certain treatment standards must be met. The treatment standards for liquid PCB wastes, with greater than 50 ppm PCBs, specifies thermal destruction. The treatment standard for Halogenated Organic Compound (HOC) wastes, with greater the 1000 ppm HOCs, specifies incineration.

The applicability of the Land Disposal Restrictions is seperate from the placement issue which triggers the Minimum Technology Requirements

for a disposal unit. These requirements are triggered when an existing unit is expanded or a new unit is created. Under Headquarters policy, the definition of what is a unit can be expanded when the contamination is not centered in "hot spots" but is more general and uniform across a large site. This is not the case at the Laskin/Poplar Oil Site. The source material areas are distinct units. Therefore, the combination of all of the wastes into one containment area would trigger the Minimum Technology Requirements, which include a double liner and a double leachate collection system.

Comment:

- Based on the soils data collected in fulfillment of the consent order, PCB and HOC concentrations do not exceed land based limits.

U.S. EPA's Response:

It is correct that the soil samples taken from four to six feet from the pits had levels below the Land Disposal Restritions limit. In addition, Land Disposal Restriction standards have not been promulgated for soil and debris wastes at this time. When these standards are published, they may be considered applicable or relevent and appropriate.

Some of the sludges, however, exceed the Land Disposal Restriction. This means some form of treatment is required for these materials. The soils immediately surrounding these sludges are believed to contain similar contaminant levels. The U.S. EPA, therefore, believes it is prudent amd reasonable to treat these soils.

The commentors felt that the whole concept of an operable unit was not supported for this site. Their reasons are as follows:

Comment:

- Both the U.S. EPA and private parties have taken emergency actions that were necessary to remove the most imminent hazardous wastes at the site. There is no authority under the Superfund Act for the agency to fractionalize response actions at a site in a manner that is wasteful, duplicative and inefficient.

U.S. EPA's Response:

The U.S. EPA would like to clarify the difference between emergency actions and remedial actions. The emergency actions were taken to to prevent imminent threats to public health and the environment. Remedial actions are used in removing threats to public health and the environment which do not require immediate action. This does not mean that the remedial actions can and should be put off for long periods of time, but that the risk is not considered imminent and does not justify emergency response action.

The source removal operable unit falls under the remedial action category. While there is no immenent risk that requires emergency action, enough information exists to show that releases of contaminants from the pits could and most likely have occurred. It would be inappropriate for the U.S. EPA not to proceed with the operable unit based on the contaminents known to be present and the threat of a release of the contaminants. This approach is consistent with 40 CFR 300.68 (c) of the National Contingency Plan.

Comment:

- The agency cannot support its proposed Remedial Action with an incomplete risk assesment.

U.S. EPA's Response:

It is the U.S. EPA's policy that source control operable units do not require a quantitative risk assessment. As stated in the Guidance on Feasibility Studies Under CERCLA, U.S. EPA, June 1985:

> " At sites where only source control remedial measures are being evaluated, a qualitative assessment of the potential public health threats in the absence of remedial action will generally be conducted."

The U.S. EPA continues to believe a source removal operation at the site is prudent.

The U.S. EPA's authority to break the site into operable units, such as this source removal, is clearly stated in the National Contingency Plan 40 CFR Part 300.68 (c).

> " Response actions may be separated into operable units consistent with achieving a permanent remedy. These operable units may include removal actions pursuant to §300.65(b) or remedial actions involving source controls, and/or management of migration.

The U.S. EPA feels that the operable unit is an efficient and practical method of dealing with complex sites such as the Laskin/Poplar Oil site.

The commentors had comments regarding the permitting of on-site incinerators at CERCLA site. These comments are listed below.

Comment:

- The Phased Feasibility Study needs to reflect that additional testing (test burn) of the incineration unit will be required to confirm the use of this technology for site remediation.

U.S. EPA's Response:

A test burn for the mobile incineration will be conducted prior to the incineration of any hazardous waste. The test burn will need to document the 99.9999% performance standard is achieved.

Comment:

- The issue of whether or not an on-site mobile incinerator may legally operate on a CERCLA cleanup site without a RCRA permit in any state other than Illinois has not been resolved. The resolution depends on the interpreatation of sections 118(i) and (2)(e) of CERCLA as amended by SARA.

U.S.EPA's Response:

Section 118(i) does not apply to the alternatives chosen. Section 118 was apparently incorporated into SARA in recognition of the fact that the State of Illinois has aggressively pursued its own program for on-site incineration, and has aquired its own mobile incinerator. Section 121 (e)'s general tenor is to insure that the often lengthy permitting process for on-site remedies, that ordinarily would require such permits, not delay the start of remediation. By requiring that such operations nevertheless must meet applicable or relevant and appropriate requirements of law, Congress has ensured that human health and environmental protection issues, otherwise covered by permitting, will be addressed.

The remainder of the comments on the remedial alternative covered a variety of topics and are presented below:

Comment:

- The high lead content of selected sludges makes off-site incineration an impractical and costly alternative.

U.S. EPA's Response:

Off-site incineration was determined to be the most expensive option. The U.S. EPA agrees that high lead content of some of the sludge could result in additional costs, and has recommended on-site incineration as the selected remedy.

Comment:

- For all alternatives, consideration needs to be given to air emissions from material handling during the on-site remedial activities.

U.S. EPA's Response:

All of the options have the possiblility of air emissions during material handling. Actions, such as conditioning the waste in the pits, will be taken minimize any air releases. Air monitoring will be used to assure that air releases are kept at an acceptable level.

Comment:

- Air quality monitoring and air pollution controls should be added to the cost estimates.

U.S. EPA's Response:

Air pollution control systems are part of the incinerator units and are included in the cost estimates. The cost of monitoring during the test burn and the continuous monitoring of the incinerator during the clean-up is also included. Air quality monitoring would need to be used for each alternative that involved moving or conditioning the waste. This cost would be similar for each alternative and therefore would not effect their relative costs.

Comment:

- On pages 68-71, landfill costs were listed as $3.75/ton, but should be $150/ton.

U.S. EPA's Response:

The U.S. EPA agrees that the wrong price/ton was given. However, the total dollar amount given is correct and the overall estimates do not change.

Comment:

- On page 71 disposal costs for 6,435 tons of soil and ash are $965,250 at $150/ton. The cost of off-site wastewater treatment is $140,000 based on 350,000 gal and $.40/gal. The line item for oil was omitted ($15,000, 30 tons, $150/ton).

U.S. EPA's Response:

The cost breakdown did accidentally merge information from the disposal of soils and ash with information from the disposal of wastewater. The commentor is correct that disposal cost for soils and ash should be $140,000. Oil was included in the 3500 tons of high level waste to be incinerated. The final cost should be $5,714,418 as opposed to $5,724,418.

Comment:

- U.S. EPA has improperly rejected certain remedial alternatives and failed to consider others. The U.S. EPA has failed to perform a complete evaluation of all reasonable alternatives. For example:

a. Could the ash be disposed of on-site?

b. Could the ash be chemically fixated and disposed of on-site?

c. Could the low level source soils be disposed of on-site?

d. Could soil washing be used?

e. How quickly could an on-site disposal unit be constructed?

U.S. EPA's Response:

The U.S. EPA has met its requirements of comparing remedial actions ranging from no action through complete destruction. Some options were ruled out prior to the Phased Feasibility Study because they were known to be inappropriate or infeasible. The U.S. EPA and Ohio EPA have chosen what they consider a reasonable and appropriate solution.

It was determined that an on-site disposal unit for the source removal could not be constructed, filled, and closed by November 1988 based on prior experience with past CERCLA remedial actions. The idea of replacing the clean ash back on site was rejected based on the fear it could be recontaminated, resulting in the extra cost of remediating the material twice. The same would be true for fixating the ash or soils and placing them back on site.

Comment:

- The option to landfill soils and non-pumpable sludge in Pit 4 should remain open based on the potential difficulty to incinerate these materials given low BTU values. The PCB and HOC concentrations are below land ban limits.

U.S. EPA's Response:

While supplemental fuel will need to be added, the U.S. EPA expects no difficulty in incinerating the soils and non-pumpable sludge in Pit 4. Soils are routinely incinerated in PCB cleanups. The PAHs and VOCs are also effectively treated by incineration. The issue is not the combustibility of the soil but the destructability of the hazardous constituents present.

Comment:

- Given the high ash content (80%), a large volume will remain after incineration which would be landfilled off site as a hazardous waste. The cost for landfilling the unpumpable sludge in Pit #4 and the soils is approximately $2.5 million less than incinerating these materials combined with landfilling the ash.

U.S. EPA's Response:

The U.S. EPA agrees that the estimated cost difference between the two options is approximately $2.5 million. The complete incineration option was chosen over a combination of landfilling and incineration for two reasons. The first reason was that the total incineration option was considered more protective of public health and the environment. The long-term dependability of any landfill is unknown. This has been supported by the difficulty of current facilities in meeting the U.S. EPA's Off-site Policy. The second reason was the goal of SARA to use permanent treatment technologies to the greatest extent practicable. With the mobile incinerator on site, it is clearly practicable to treat the additional material.

While the current estimated difference between these two options is $2.5 million, the actual difference could be much lower. This is true for two reasons. The first reason is that the soils which are in contact with the cinder block walls and unlined bottoms of the pits are believed to have contaminant levels similar to the sludges and oil and therefore would need to be incinerated under either option. The second reason is that much of the ash may pass the necessary tests which would enable it to be disposed of in a sanitary landfill.

Comment:

- Considering the quantity of ash generated, the volume reduction from incineration is not significant.

U.S. EPA's Response:

The goal of SARA is to reduce toxicity, mobility, or volume. By incinerating the soils and non-pumpable sludge in Pit 4, toxicity is reduced significantly and volume is decreased by approximately 20%. Mobility is also addressed by eliminating the majority of the hazardous constituents and the most mobile constituents.

Comments:

- What ARARs were considered in weighing various alternatives.

U.S. EPA's Response:

The ARARs considered in weighing the various alternatives included the Resource Conservation and Reclamation Act (RCRA), the Toxic Substances Control Act (TSCA), the Clean Water Act (CWA), the Clean Air Act (CAA), Chapters 3704, 3734, of the Ohio Revised Code (ORC) Section 3745-15, 17, 18, and 21 as well as 50 through 69 OAC dealing with air and water contamination and Chapter 3745-31 of the ORC dealing with untertaking a solid waste disposal facility.

C. Time Limits

The commentors expressed concern regarding the length of the public comment period and the time period for producing a good faith offer. The specific comments are dealt with below:

Comment:

- No notice of the draft FS was received prior to the PRP notice letter dated August 18, 1987 and postmarked August 21, 1987. EPA's failure to allow adequate, reasonable, and meaningful opportunities in which to comment is contrary to public participation provisions.

U.S. EPA's Response:

The public comment period must last a minimum of 21 days as specified under the National Contingency Plan. A 21-day comment period for the site was established from August 10, 1987 to August 31, 1987 by the placing of an announcement in the local paper on August 4, 1987. In addition to this announcement, the special notice letters were sent to the PRPs.

Requests were made by various PRPs for an extension of the comment period. An extension was granted by U.S. EPA to September 11, 1987. This allowed 21 days from the actual mailing of the notice letters and 32 days overall.

Also, this action is one in a series of activities that have been taken related to this site. The PRPs have been aware that a PFS was in preparation and that their own study, undertaken in response to an EPA Administrative Order, would in part be the basis for the the PFS. The U.S. EPA feels adequate time was provided for review of and comment on the PFS.

Comment:

- The Agency did not provide complete copies of the study with the notice of letters. Only selected excerpts were sent.

U.S. EPA's Response:

Complete copies of the report were sent out to the members of the steering commitee which had been established by the PRPs in existing litigation on past costs. In addition, complete copies of the PFS were placed in the Information Repositories located in Jefferson and Ashtabula, Ohio, and at the U.S. EPA Region V office, located in Chicago, Il. It would not have been feasible to provide complete copies of the report to each of the more than 300 PRPs involved with the site who received special notices.

Comment:

- At the PRP meeting on September 4 in Cleveland, EPA announced that the deadline for good faith proposals to perform the next phase of work would end on October 23, 1987. Becasuse the EPA will not announce its final decision until the end of the September, after considering public comment, there is an objection to the triggering of the 60-day deadline under the CERCLA Section 122 "special notice" procedures.

U.S.EPA's Response:

The U.S. EPA is currently developing guidance on the timing of the issuance of "Special Notice" letters. While there are several possible approaches, the present procedure being followed is to initiate the 60 day moratorium/period of negotiation concurrent with the public comment period and Record of Decision review and approval process. The advantage of this approach is the oppurtunity it provides PRPs to get involved in the alternative evaluation process through the submission of formal comments.

D. Funding

Comment:

- PRP liability for cost incurred should be allocated in accordance with the degree to which parties contributed substances to which EPA may legally respond under CERCLA not on volume of oil disposed of.

U.S. EPA's Response:

The question of liability is not a factor in the choice of remediation action and will not be dealt with in this responsiveness summary.

Comment:

- Section 104 of the Superfund Act requires that States assume a share of the costs of Remedial activity. The PFS does not indicate whether or not this requirement has been satisfied.

U.S. EPA's Response:

The issue of State share was not discussed in the PFS because it had no bearing on the feasibility or effectiveness of the alternatives. The State is responsible for 10% of the remedial actions capital cost and 10% of the first years operation and maintenence (O&M). All subsequent O&M would be funded by the state. The State of Ohio concurs with the U.S. EPA's choice of source removal and will fund its cost share.

E. General

Comment:

- The maps on pages 6 and 31 should have the pits numbered in increasing order from right to left.

U.S. EPA's Response:

The pits should be numbered in increasing order from right to left.